

ABSTRACT OF THE DISCLOSURE

A motor starter system comprises solid state switches for connection to an AC line for controlling application of AC power to the motor. A fault contactor has contacts. A motor wiring circuit operatively connects the solid state switches and fault contactor contacts with motor winding terminals. A voltage sensor senses AC line voltage and motor terminal voltage. A control circuit controls operation of the solid state switches and the fault contactor, including de-energizing the fault contactor in an off mode where AC line power is not supplied to the motor winding terminals. The control circuit detects AC line voltage and motor terminal voltage in the off mode and detect an error condition responsive to sensed AC line voltage being substantially different from motor terminal voltage in the off mode.